

CLAIMS

We claim:

1. A prosthetic foot comprising:
a longitudinally extending foot keel;
a resilient, monolithically formed shank extending upwardly from the foot keel to form an ankle joint area of the prosthetic foot and a lower, prosthetic part of a leg above the ankle joint area for connection with a lower extremity prosthetic socket on a person's leg stump;
wherein at least the lower portion of the shank extending upwardly from the foot keel is anterior facing convexly curved; and
wherein the shank and at least a portion of the foot keel are monolithically formed.
2. The prosthetic foot according to claim 1, wherein the entire foot keel and the shank are monolithically formed.
3. The prosthetic foot according to claim 1, wherein the shank and a posterior part of the foot keel are monolithically formed, an anterior part of the foot keel being joined to said posterior part to form said foot keel.
4. The prosthetic foot according to claim 1, wherein the radius of curvature of the anterior facing convexly curved portion of the shank increases progressively as the shank extends upwardly from the foot keel.
5. The prosthetic foot according to claim 1, wherein the shank in both the ankle joint

area and the lower, prosthetic part of a leg above the ankle joint area is anterior facing convexly curved.

6. The prosthetic foot according to claim 1, further comprising an adapter connected to an upper portion of the shank for use in connecting the prosthetic foot to a lower extremity prosthetic socket on a person's leg stump.

7. The prosthetic foot according to claim 1, wherein the shank extends upward in a substantially curvilinear manner in the direction of the longitudinal extent of the foot above the ankle joint area to form the lower, prosthetic part of a leg.

8. The prosthetic foot according to claim 1, wherein the shank has a straight vertical upper end.

9. The prosthetic foot according to claim 1, wherein the monolithically formed shank and foot keel are formed of metal.

10. A prosthesis comprising:

a foot;

an ankle;

an elongated, upstanding shank above the ankle;

wherein the ankle, shank, and at least a portion of the foot are monolithically formed as a resilient member for improving the dynamic response of the prosthesis, the resilient member at

least in the area of the ankle being anterior facing convexly curved.

11. The prosthesis according to claim 10, wherein the foot includes a longitudinally extending foot keel which is monolithically formed with the ankle and shank as said resilient member.

12. The prosthesis according to claim 10, wherein the ankle, shank and a posterior part of the foot keel are monolithically formed, an anterior part of the foot being joined to said posterior part to form said foot.

13. The prosthesis according to claim 10, wherein the radius of curvature of the anterior facing convexly curved resilient member increases progressively as the resilient member extends upwardly from the foot.

14. The prosthesis according to claim 10, wherein the resilient member in the area of the ankle and in the shank is anterior facing convexly curved.

15. The prosthesis according to claim 10, further comprising an adapter connected to an upper portion of the shank for use in connecting the prosthesis to a lower extremity prosthetic socket on a person's leg stump.

16. The prosthesis according to claim 10, wherein the shank above the ankle is substantially curvilinear in the direction of the longitudinal extent of the foot.

17. The prosthesis according to claim 10, wherein the shank has a straight vertical upper end.

18. The prosthesis according to claim 10, wherein the resilient member is formed of metal.

19. A prosthetic foot comprising:

a longitudinally extending foot keel;

a resilient calf shank having a lower end connected to the foot keel, an anterior facing convexly curved lower portion extending upwardly from the foot keel, and an upper end to connect with a lower extremity prosthetic socket on a person's leg stump, the upper end being moveable longitudinally of the foot keel in response to force loading and unloading of the calf shank during use of the prosthetic foot;

wherein the prosthetic foot includes a plurality of longitudinal sections each including respective, monolithically formed foot keel and calf shank sections, the longitudinal sections at their distal ends being moveable independent of one another and at their proximal ends being integral with one another.

20. The prosthetic foot according to claim 19, wherein the longitudinal sections include sections whose foot keel distal surfaces are at different heights.

21. The prosthetic foot according to claim 19, wherein there are three longitudinal

sections arranged side by side with the central section having a foot keel distal surface at a height above the distal surfaces of the adjacent sections.

22. The prosthetic foot according to claim 19, wherein the longitudinal sections are monolithically formed with one another at the proximal ends of their calf shank sections.